

Date: Thursday, 11/15/2007 9:28:46 AM  
 User: Kim Johnston

## Process Sheet

37

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : FLOAT SKIDTUBE  
 Job Number : 33974  
 Estimate Number : 10366  
 P.O. Number : N/A Part Number : D412742013  
 This Issue : 11/15/2007 S.O. No. : N/A Drawing Number : N/A UNDER REVIEW  
 Prsht Rev. : NC Project Number : N/A  
 First Issue : 8/15/2007 Type : LANDING GEAR Drawing Revision : N/A  
 Previous Run : 33973 Material : N/A  
 Due Date : 9/10/2007 Qty: 1 Um: Each  
 Written By :  
 Checked & Approved By :  
 Comment : Est Rev: A 05.10.13 New Issue KJJ/JLM  
 Est Rev: B 06-06-08 As per DSI9336 JLM

OK FOR TUG  
 JES ONLY  
 11.15

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



KS 07.08.30

Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels per PPP D412-742-013 - CHG003

2.0 33974A FLOAT SKID ASSEMBLY



Comment: Sub-Component FLOAT SKID ASSEMBLY

D412-742-043 B 33974A

2/14/16

3.0 D2571 Saddle, Fwd, Out



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch  
 1 D2571 Saddle Fwd Outside 34367

4.0 D2572 Saddle, Fwd, In



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch  
 1 D2572 Saddle Fwd Inside 34813

5.0 D2573 Saddle, Aft, Out



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch  
 1 D2573 Saddle Aft Outside 34814

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKIDTUBE

Job Number: 33974

Part Number: D412742013

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

D2574

Saddle, Aft, In



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D2574

Saddle Aft Outside

34815

Le

7.0

D2747

Set Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

4 D2747

Bolt

33470

AD

8.0

D2876

Saddle Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D2876

Saddle Spacer

29789

Le

9.0

D2877

Saddle Spacer



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D2877

Saddle Spacer

32104

Le

10.0

D34031

Bushing



Comment: Qty.: 16.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 D3403-1

Bushing

33786

W

11.0

D34033

Bushing



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

8 D3403-3

Bushing

34009

W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKIDTUBE

Job Number: 33974

Part Number: D412742013

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

D3405041

Lug Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3405-041

GHW Lug

32890

*W*

13.0

D3405043

Lug Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3405-043

GHW Lug

32891

*W*

14.0

AN4C6A

Bolt



Comment: Qty.: 16.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 AN4C6A

Bolt

M19546

*W*

15.0

AN4C46A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

4 AN4C46A

Bolt

M19529

*W*

16.0

AN4C52A

BOLT



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

8 AN4C52A

Bolt

M19512

*W*

17.0

AN6C12A

BOLT



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

8 AN6C12A

Bolt

M194289

*W*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKIDTUBE

Job Number: 33974

Part Number: D412742013

Job Number:



Seq. #:

Machine Or Operation:

Description :

18.0

AN960C416L

WASHER



Comment: Qty.: 32.0000 Each(s)/Unit Total : 32.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

32 AN960C416L

Washer

M100651

19.0

AN960C616L

WASHER



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

8 AN960C616L

Washer

M18822 40

M1881844

20.0

AN960C716L

WASHER



Comment: Qty.: 16.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 AN960C716L

Washer

M104093 64

M105792 100

21.0

MS210434

Nut



Comment: Qty.: 29.0000 Each(s)/Unit Total : 29.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

29 MS21043-4Nut

Washer

M105793

22.0

NAS1515H4L

WASHER



Comment: Qty.: 32.0000 Each(s)/Unit Total : 32.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

32 NAS1515H4L

Washer

M105728

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKIDTUBE

Job Number: 33974

Part Number: D412742013

Job Number:



Seq. #:

Machine Or Operation:

Description:

23.0

NAS1515H6L

WASHER



Comment: Qty.: 8.0000 Each(s)/Unit Total: 8.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

8 NAS1515H6L

Washer

M18 9/18

24.0

NAS1515H7L

WASHER



Comment: Qty.: 16.0000 Each(s)/Unit Total: 16.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

16 NAS1515H7L

Washer

M100727

25.0

D3407041

Tow Ring



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3407-041

TOW RING

34010

26.0

D34173

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

2 D3417-3

WASHER

33579

27.0

D34561

washer



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

1 D3456-1

WASHER

M133276

28.0

AN4C7A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Bolt

Batch:

M101427Per 2/11/15 (1)

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: D Date: 07/11/19  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 11/15/2007 9:28:46 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKIDTUBE

Job Number: 33974

Part Number: D412742013

Job Number:



Seq. #:

Machine Or Operation:

Description :

29.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



①

Comment: INSPECT 100% KITS FOR COMPLETENESS

7-11-16

30.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-742-013

Location: \_\_\_\_\_

7-11-16

31.0

QC21

FINAL INSPECTION/W/O RELEASE



①

Comment: FINAL INSPECTION/W/O RELEASE

7-11-16

Job Completion



7-11-17

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Ship Monday 19/11

Dart Aerospace Ltd.

Date: Thursday, 11/15/2007 9:28:57 AM  
User: Kim Johnston

## Process Sheet

37

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: FLOAT SKID ASSEMBLY
Job Number	: 33974A		
Estimate Number	: 10756		
P.O. Number	: N/A	Part Number	: D412742043
This Issue	: 11/15/2007 S.O. No. : N/A	Drawing Number	: D3391 REV F
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 8/15/2007 Type : LANDING GEAR	Drawing Revision	: F
Previous Run	: 33973A	Material	: N/A
Written By	:	Due Date	: 9/10/2007 Qty: 1 Um: Each
Checked & Approved By	: <u>[Signature]</u>		
Comment	: Est Rev A 05.10.13 New Issue K/J/JLM		
	: Est Rev B 06.02.13 ECN 773 dwg @ rev.D EC		
	: Est Rev C 07-05-28 As per Rev F JLM		

OK for REV.F  
This Job only 107-115

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description:

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

If D412-742-043 is a W/O on it's own,

Photocopy bluefile and create labels per PPP D412-742-043 CHG003

N/A

2.0 D3391023 Mid Tube Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

pick:

Qty Part Number Description Batch

1 D3391-023 Mid Tube Assembly

B335749

3.0 D3391025 Aft Tube Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

pick:

Qty Part Number Description Batch

1 D3391-025 Aft Tube Assembly

B333846

4.0 D35641 WEARSHOE



(1X)

Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

WEARSHOE

Batch:

B333798

m-a / BR 07/11/16

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKID ASSEMBLY

Job Number: 33974A

Part Number: D412742043

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D35643

WEARSHOE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARSHOE

Batch: B34052

*m-h*

6.0

D35645

WEARSHOE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

WEARSHOE

Batch: B34800

*m-h*

7.0

D35661

GASKET



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

GASKET

Batch: B34853

*m-h*

8.0

D35665

GASKET



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GASKET

Batch: B34354

*m-h*

9.0

AN3C4A

BOLT



Comment: Qty.: 24.0000 Each(s)/Unit Total : 24.0000 Each(s)

BOLT

Batch: M106043

*m-h*

10.0

AN3C6A

BOLT



Comment: Qty.: 12.0000 Each(s)/Unit Total : 12.0000 Each(s)

BOLT

Batch: M105057

*m-h*

11.0

AN3C7A

BOLT



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

BOLT

Batch: M105906

*m-h* 07/11/16  
*IX*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



Date: Thursday, 11/15/2007 9:28:57 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKID ASSEMBLY

Job Number: 33974A

Part Number: D412742043

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

AN960C10L

washer



(IX)

Comment: Qty.: 44.0000 Each(s)/Unit Total: 44.0000 Each(s)

washer

Batch: M106167

1 m.d. 07/14/16

13.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Spray inside tube of D3391-021/-023/-025 with LPS-3 as per Dwg D3391

A/R LPS-3

M105005

2-Install tubes together and seal them all the way around using Sikaflex 241/291. Ensure tube ends line-up with saddle holes for proper alignment, using 7/16" "T" Pins.

A/R Sikaflex-241/-291

M105585

Expiry date:

08/07

3-Install wearplates as per Dwg D3391. Ensure that plastic washers are against wearplate, then topped with the SS washer. Coat bolts with LPS "procyon".

Seal all bolts with sikaflex except ones with inserts on inside of tube, hand tighten only bolts with no sikaflex.

A/R LPS Procyon

M104251

A/R Sikaflex-241/-291

M105585

Expiry date:

07/07

4-Remove "T" pins once sikaflex is dry.

5-Coat all exposed hardware with LPS Procyon. Remove any excess off with MEK degreaser.

07/14/16  
m.d. / BR

14.0

QC5

INSPECT WORK TO CURRENT STEP



(I)

Comment: INSPECT WORK TO CURRENT STEP

M1 07 11 16

15.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D412-742-043

Location:

PAP

PPP Rev:

33974

Ch

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: D Date: 8/11/19  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLOAT SKID ASSEMBLY

Job Number: 33974A

Part Number: D412742043

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

①  
2011/11/19

Job Completion



U 06-11.17

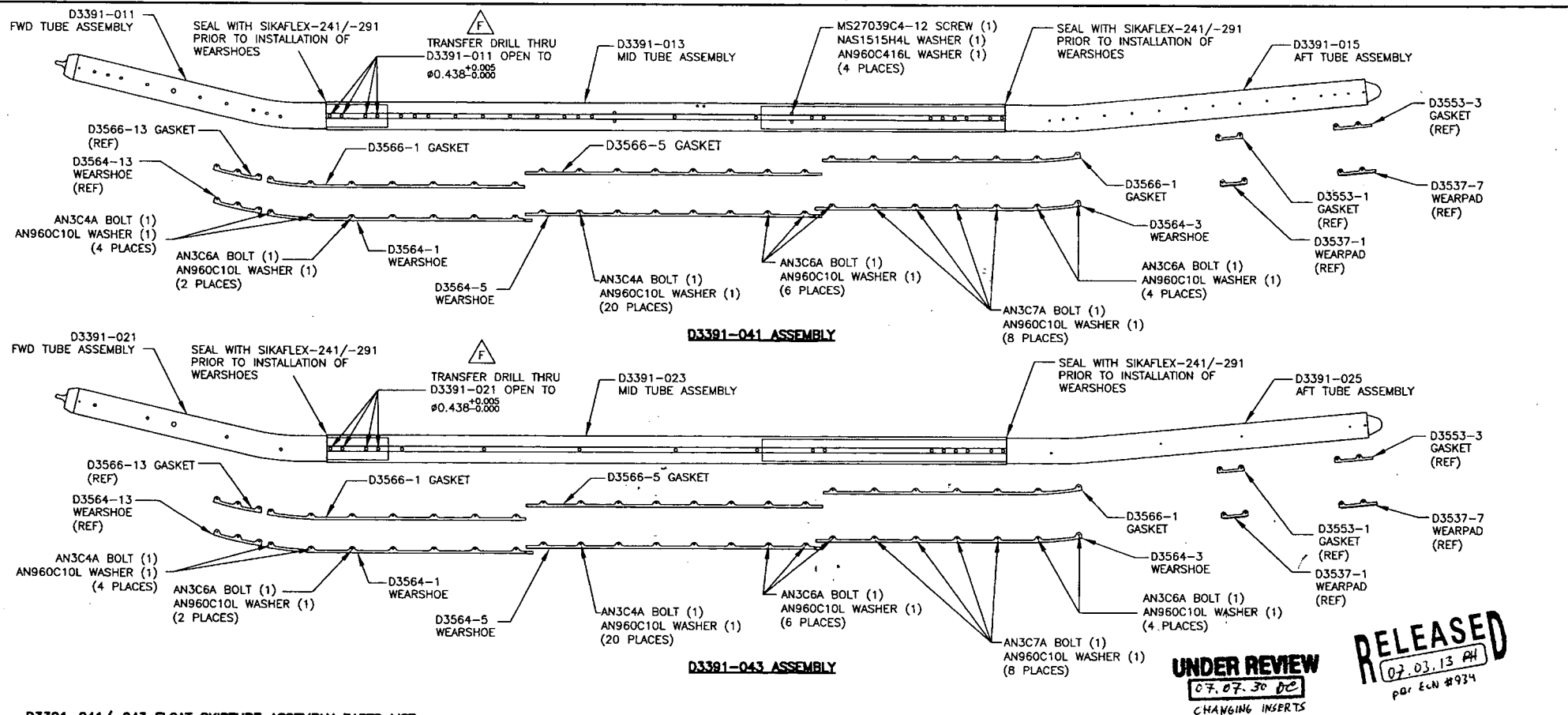
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries



#### D3391-041/-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

QTY	QTY	PART NUMBER	DESCRIPTION
-041	-043		
X	X	D3391-041	FLOAT SKIDTUBE ASSEMBLY
		D3391-043	FLOAT SKIDTUBE ASSEMBLY
1		D3391-011	FWD TUBE ASSEMBLY
1		D3391-013	MID TUBE ASSEMBLY
1		D3391-015	AFT TUBE ASSEMBLY
1	1	D3391-021	FWD TUBE ASSEMBLY
1	1	D3391-023	MID TUBE ASSEMBLY
1	1	D3391-025	AFT TUBE ASSEMBLY
1	1	D3564-1	WEARSHOE
1	1	D3564-3	WEARSHOE
1	1	D3564-5	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
24	24	AN3C4A	BOLT
12	12	AN3C6A	BOLT
8	8	AN3C7A	BOLT
44	44	AN960C10L	WASHER
4	4	MS27039C4-12	SCREW
4	4	NAS1515H4L	WASHER
4	4	AN960C416L	WASHER

#### GENERAL NOTES

- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL 'E' SIZE HOLES (#0.250-#0.257) FOR WEARSHOE INSERTS. C'SINK #0.391/#0.425 x 100" AS APPLICABLE AND INSTALL INSERTS EXCEPT WHERE INDICATED.

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F	07.01.18	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021
E	06.04.25	CHANGE TOLERANCE, EASE MANUFACTURE
D	06.01.23	UPDATE TOLERANCE, CHANGE HOLE SIZE
C	05.09.27	LENGTHEN AFT EXTENSION
B	05.06.10	DRAWING UPDATES
A	05.02.07	NEW ISSUE
DESIGN	PH	DRAWN BY
CHECKED	PH	APPROVED
DATE	07.01.18	TITLE
		412 FLOAT SKIDTUBE

**DART** DART AEROSPACE USA, INC.  
PORT WADSWORTH, OH

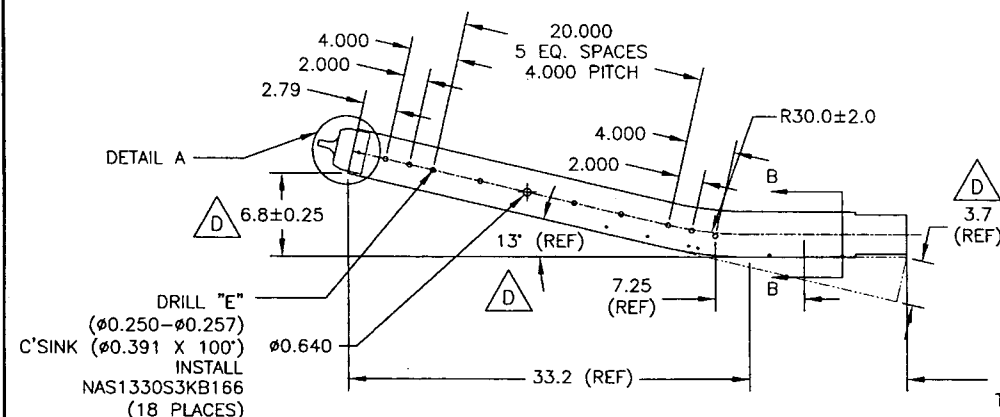
DRAWING NO. D3391  
REV. F  
SHEET 1 OF 5

SCALE  
NTS

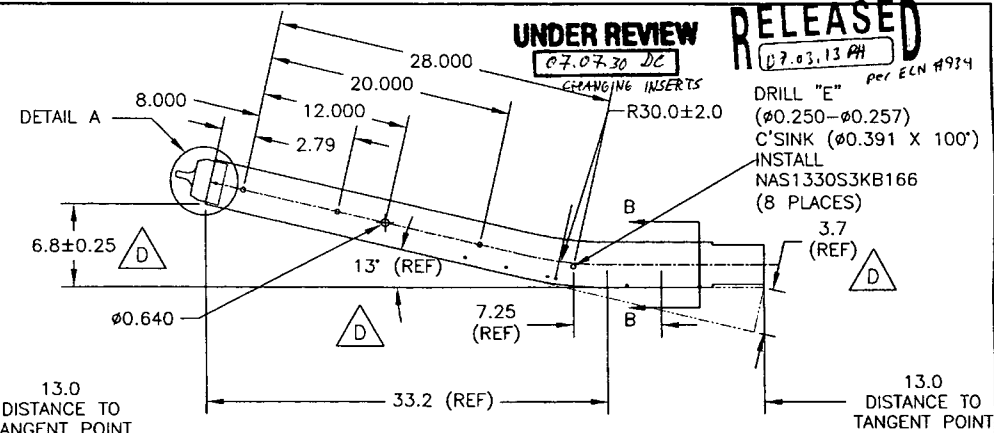
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WITHOUT NOTICE  
WORK ORDER  
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UNDER REVIEW

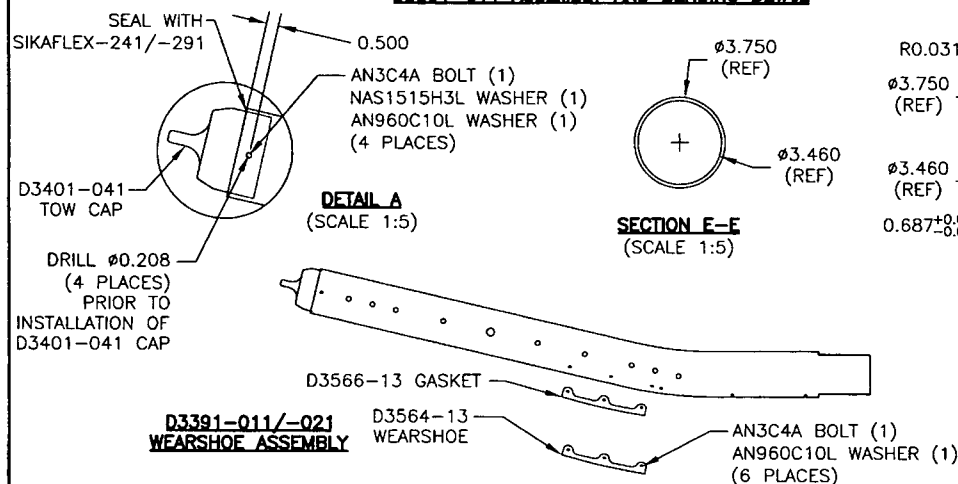
RELEASED  
07.03.13 AH



D3391-011 ASSEMBLY AND BENDING DETAIL



D3391-021 ASSEMBLY AND BENDING DETAIL



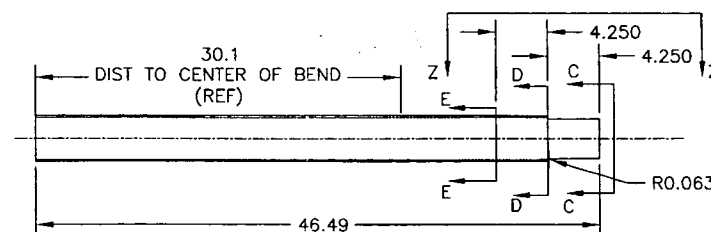
D3391-011/-021 WEARSHOE ASSEMBLY

D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST

QTY - 011	QTY - 021	PART NUMBER	DESCRIPTION
X	X	D3391-011	FWD TUBE ASSEMBLY
		D3391-021	FWD TUBE ASSEMBLY
1	1	D6013-047	FWD TUBE
1	1	D3401-041	TOW CAP
1	1	D3564-13	WEARSHOE
1	1	D3566-13	GASKET
10	10	AN3C4A	BOLT
4	4	NAS1515H3L	WASHER
10	10	AN960C10L	WASHER
30	20	NAS1330S3KB166	INSERT (OR NAS1330C3KB166)

5  
DRILL "E"  
(Ø0.250-Ø0.257)  
C'SINK (Ø0.391 X 100')  
INSTALL  
NAS1330S3KB166  
(12 PLACES)

SECTION B-B  
(SCALE 1:5)



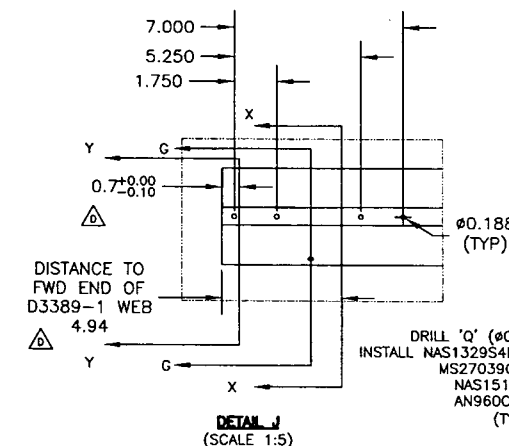
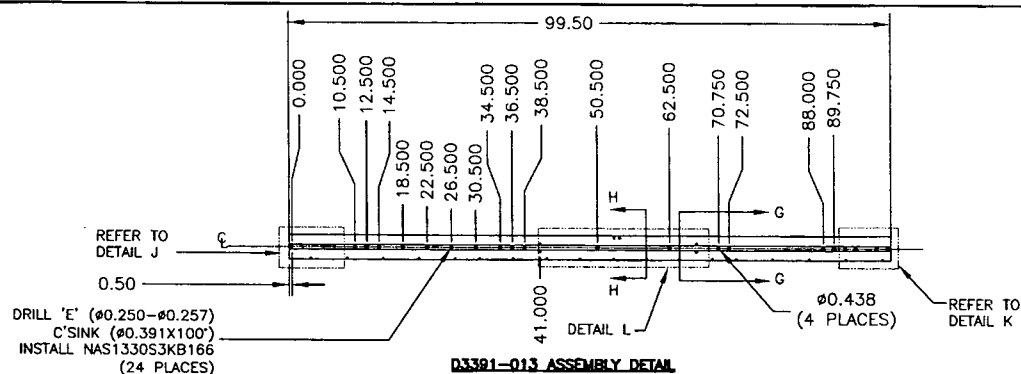
D3391-1 DRILLING AND CUTTING DETAIL  
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)

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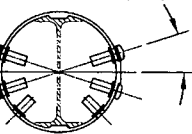
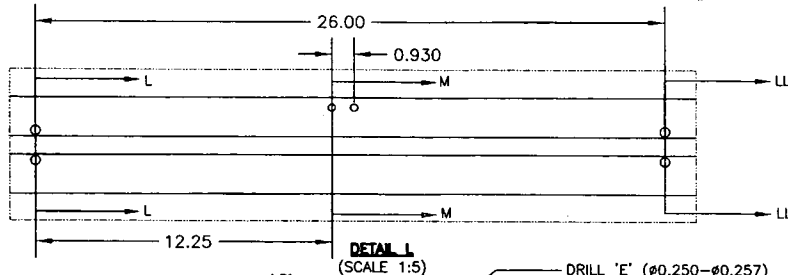
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		D3391	SHEET 2 OF 5
DATE		TITLE	SCALE
07.01.18		412 FLOAT SKIDTUBE	1:10

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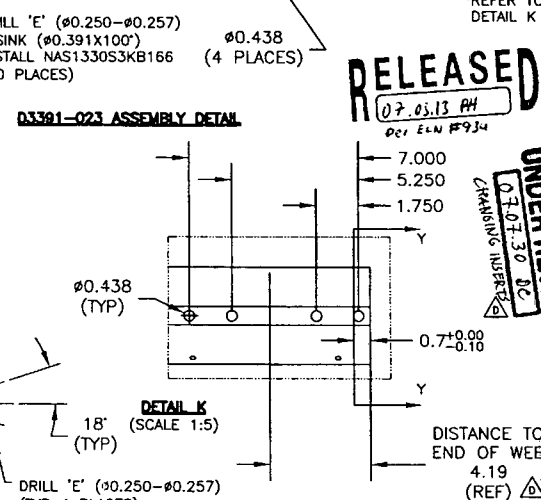
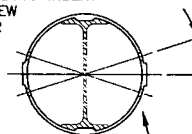


DRILL 'O' (Ø0.332-Ø0.338)  
INSTALL NAS1329S4KB140 INSERT  
MS27039C4-08 SCREW  
NAS1515H4L WASHER  
AN960C416L WASHER  
(TYP 4 PLACES)



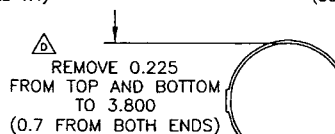
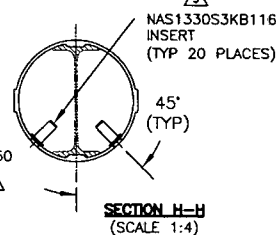
DRILL 'E' (Ø0.250-Ø0.257)  
C'SINK (Ø0.391X100')  
INSTALL NAS1330S3KB116 INSERT  
MS27039C1-09 SCREW  
NAS1515H3L WASHER  
AN960C10L WASHER  
(TYP 4 PLACES)

SECTION M-M (SCALE 1:4)



DETAIL K (SCALE 1:5)

SECTION II-II (SCALE 1:4)



SECTION G-G (SCALE 1:4)

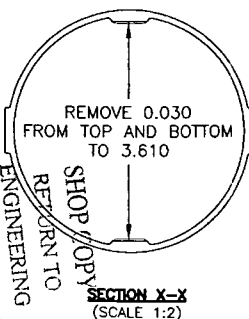
# **D3391-013/-023 MID TUBE ASSEMBLY PARTS LIST**

QTY - 013	QTY - 023	PART NUMBER	DESCRIPTION
X		D3391-013	MID TUBE ASSEMBLY
	X	D3391-023	MID TUBE ASSEMBLY
1	1	D2500-1-100	EXTRUSION
1	1	D3389-1	WEB
24	20	NAS1330S3KB116	INSERT (OR NAS1330C3KB116)
24	10	NAS1330S3KB166	INSERT (OR NAS1330C3KB166)
4		NAS1329S4KB140	INSERT (OR NAS1329C3KB140)
4		NAS1515H3L	WASHER
4		AN960C10L	WASHER
4		NAS1515H4L	WASHER
4		AN960C416L	WASHER
4		MS27039C1-09	SCREW
4		MS27039C4-08	SCREW

## **D3391-013/-023 MID TUBE ASSEMBLY**

- MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 915

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TITLE

412 FLOAT SKIDTUBE

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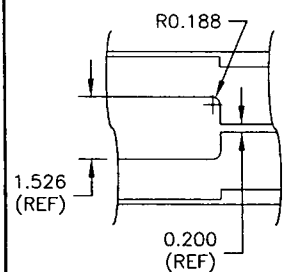
SHEET 3 OF 5

SCALE

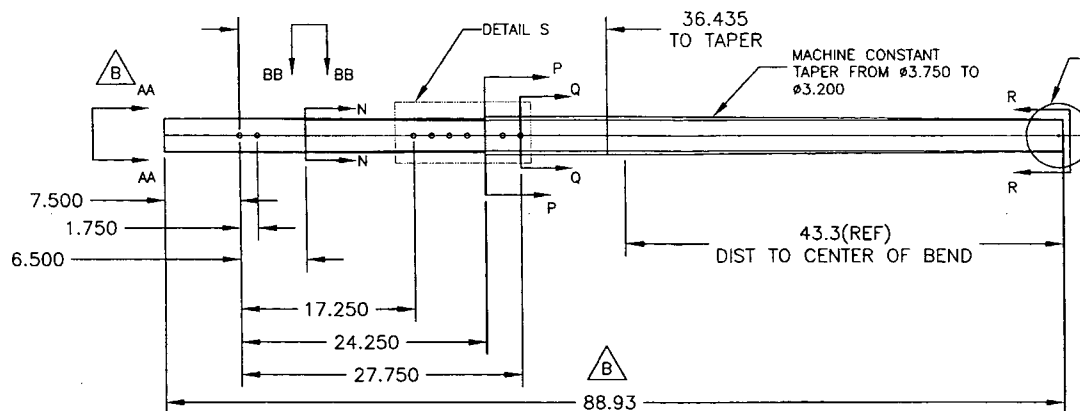
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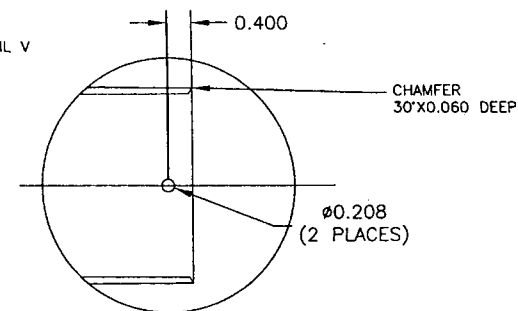
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07.07.30 DC  
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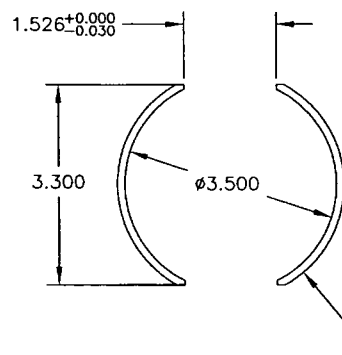
VIEW BB-BB  
(SCALE 1:3)



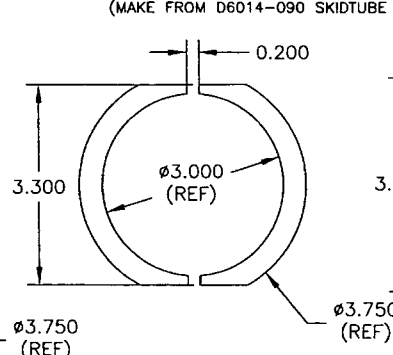
D3391-3 AFT DRILLING AND CUTTING DETAIL  
(MAKE FROM D6014-090 SKIDTUBE MATERIAL)



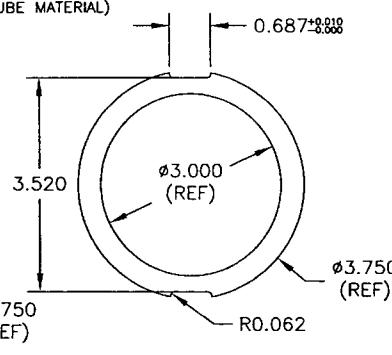
DETAIL V  
(SCALE 1:2)



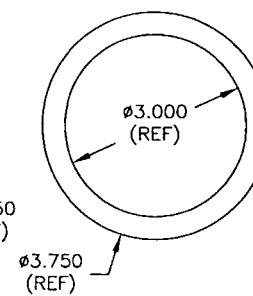
SECTION AA-AA  
(SCALE 1:2)



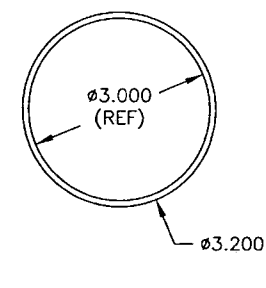
SECTION N-N  
(SCALE 1:2)



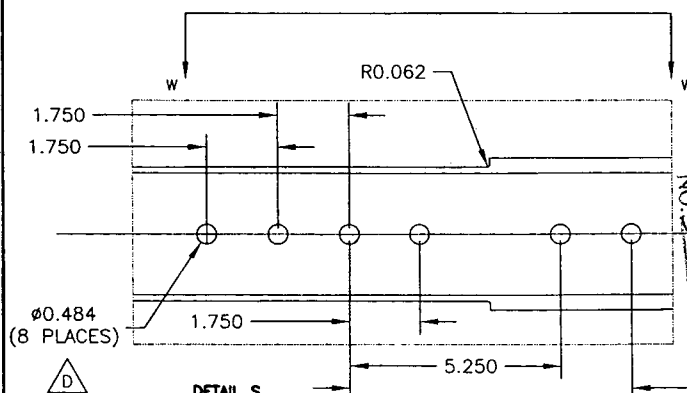
SECTION P-P  
(SCALE 1:2)



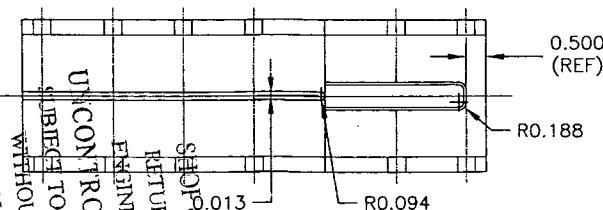
SECTION Q-Q  
(SCALE 1:2)



SECTION R-R  
(SCALE 1:2)



DETAIL S  
(SCALE 1:3)



VIEW W-W  
(SCALE 1:3)

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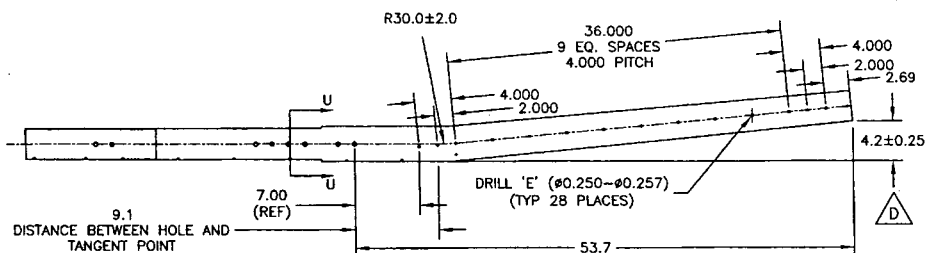
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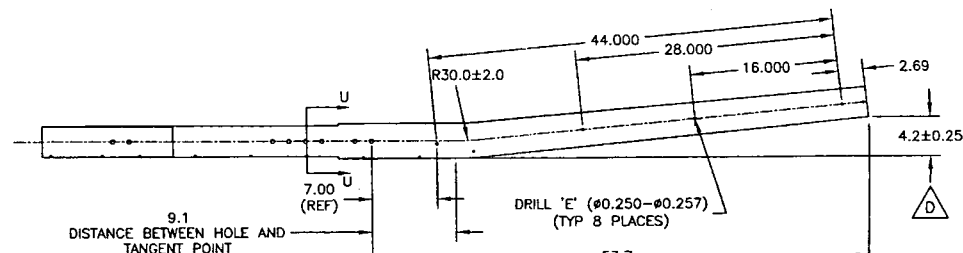
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DATE 07.01.18	DRAWING NO. D3391	TITLE 412 FLOAT SKIDTUBE	SCALE 1:12

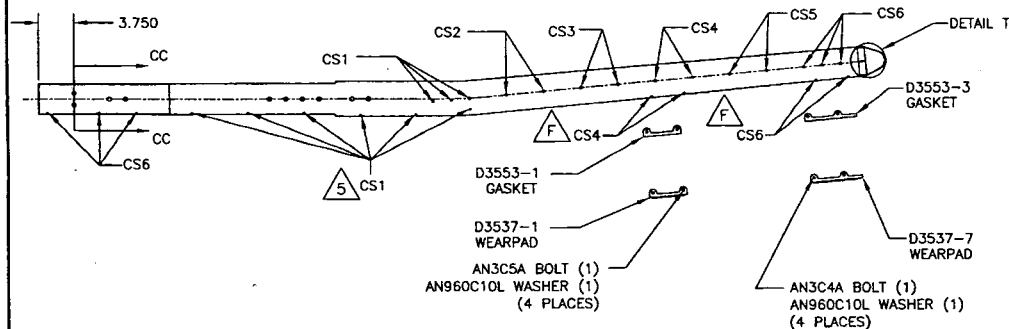




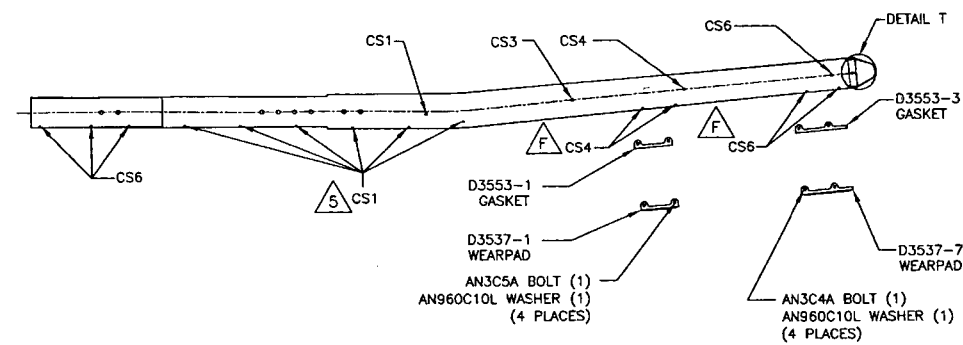
**D3391-015 BENDING AND ASSEMBLY DETAIL**



**D3391-025 BENDING AND ASSEMBLY DETAIL**



**D3391-015 INSERT AND WEARPAD INSTALLATION DETAIL**  
(SEE TABLE)

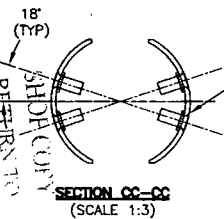


**D3391-025 INSERT AND WEARPAD INSTALLATION DETAIL**  
(SEE TABLE)

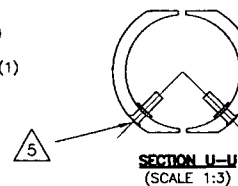
**D3391-015/-025 AFT TUBE ASSEMBLY PARTS LIST**

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X	X	D3391-015	AFT TUBE ASSEMBLY
	X	D3391-025	AFT TUBE ASSEMBLY
1	1	D6014-090	AFT TUBE
1	1	D2646	AFT CAP
1	1	D3537-1	WEARPAD
1	1	D3537-7	WEARPAD
1	1	D3553-1	GASKET
1	1	D3553-3	GASKET
18	14	NAS1330S3KB366	INSERT (OR AES10KB366)
4	2	NAS1330S3KB316	INSERT (OR NAS1330C3KB316)
8	6	NAS1330S3KB266	INSERT (OR NAS1330C3KB266)
4		NAS1330S3KB216	INSERT (OR NAS1330C3KB216)
16	12	NAS1330S3KB166	INSERT (OR NAS1330C3KB166)
4		NAS1330S4KB151	INSERT (OR NAS1330C4KB151)
6	6	AN3C4A	BOLT
4	4	AN3C5A	BOLT
2	2	NAS1515H3L	WASHER
10	10	AN960C10L	WASHER

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DRILL 'D' (Ø0.332-Ø0.338)  
C'SINK (Ø0.529X100")  
NAS1330S4KB151 INSERT (1)  
(4 PLACES)



AN3C4A BOLT (1)  
NAS1515H3L WASHER (1)  
AN960C10L WASHER (1)  
(2 PLACES)  
DETAIL T  
(SCALE 1:3)  
SEAL WITH  
SIKAFLEX-241/-291

C'SINK AND INSTALL NAS1330S3KBXXX IN HOLES MARKED CS1-CS6 AS FOLLOWS

HOLES MARKED	QTY D3391-015	QTY D3391-025	C'SINK	P/N
CS1	18	14	Ø0.425	NAS1330S3KB366
CS2	4		Ø0.391	NAS1330S3KB366
CS3	4	2	Ø0.391	NAS1330S3KB316
CS4	8	6	Ø0.391	NAS1330S3KB266
CS5	4		Ø0.391	NAS1330S3KB216
CS6	16	12	Ø0.391	NAS1330S3KB166

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DATE 07.01.18	TITLE 412 FLOAT SKIDTUBE	REV. F SHEET 5 OF 5 SCALE 1:12

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